

## Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

### I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:

Address:

City:

State:  Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☐ Yes ☒ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

N/A

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

N/A

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

N/A

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☒ Yes ☐ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.

N/A

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.

N/A

**For the Applicant/Recipient**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

JOANNA L THAYER

B. Title of Authorized Official

President

C. Date

03/24/2022

**For the U.S. Environmental Protection Agency**

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. \*Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

**\* See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. \* Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

## Other Attachment File(s)

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\* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

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To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

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# EPA KEY CONTACTS FORM

OMB Number: 2030-0020  
Expiration Date: 06/30/2024

**Authorized Representative:** *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

<b>Name:</b>	<b>Prefix:</b>	<b>First Name:</b>	<b>Middle Name:</b>
		Edward	
	<b>Last Name:</b>		<b>Suffix:</b>
	Michalenko		Ph.D
<b>Title:</b>	President		
<b>Complete Address:</b>			
<b>Street1:</b> 5795 Widewaters Pkwy			
<b>Street2:</b> 2nd Fl			
<b>City:</b> Syracuse		<b>State:</b> NY: New York	
<b>Zip / Postal Code:</b> 13214 -1846		<b>Country:</b> USA: UNITED STATES	
<b>Phone Number:</b>	315-472-2150	<b>Fax Number:</b>	
<b>E-mail Address:</b>	emichalenko@oei2.org		

**Payee:** *Individual authorized to accept payments.*

<b>Name:</b>	<b>Prefix:</b>	<b>First Name:</b>	<b>Middle Name:</b>
		Edward	
	<b>Last Name:</b>		<b>Suffix:</b>
	Michalenko		Ph.D
<b>Title:</b>	President		
<b>Complete Address:</b>			
<b>Street1:</b> 5795 Widewaters Pkwy			
<b>Street2:</b> 2nd Fl			
<b>City:</b> Syracuse		<b>State:</b> NY: New York	
<b>Zip / Postal Code:</b> 13214 -1846		<b>Country:</b> USA: UNITED STATES	
<b>Phone Number:</b>	315-472-2150	<b>Fax Number:</b>	
<b>E-mail Address:</b>	emichalenko@oei2.org		

**Administrative Contact:** *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

<b>Name:</b>	<b>Prefix:</b>	<b>First Name:</b>	<b>Middle Name:</b>
		JoAnna	
	<b>Last Name:</b>		<b>Suffix:</b>
	Mazur		
<b>Title:</b>	Grants Administrator		
<b>Complete Address:</b>			
<b>Street1:</b> 5795 Widewaters Pkwy			
<b>Street2:</b> 2nd Fl			
<b>City:</b> Syracuse		<b>State:</b> NY: New York	
<b>Zip / Postal Code:</b> 13214 -1846		<b>Country:</b> USA: UNITED STATES	
<b>Phone Number:</b>	315-472-2150	<b>Fax Number:</b>	
<b>E-mail Address:</b>	jmazur@oei2.org		

# EPA KEY CONTACTS FORM

**Project Manager:** *Individual responsible for the technical completion of the proposed work.*

**Name:** **Prefix:**  **First Name:**  **Middle Name:**

**Last Name:**  **Suffix:**

**Title:**

**Complete Address:**

**Street1:**

**Street2:**

**City:**

**State:**

**Zip / Postal Code:**

**Country:**

**Phone Number:**

**Fax Number:**

**E-mail Address:**

## Application for Federal Assistance SF-424

\* 1. Type of Submission:

- ☐ Preapplication  
☒ Application  
☐ Changed/Corrected Application

\* 2. Type of Application:

- ☒ New  
☐ Continuation  
☐ Revision

\* If Revision, select appropriate letter(s):

\* Other (Specify):

\* 3. Date Received:

03/24/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

\* a. Legal Name:

Onondaga Environmental Institute, Inc.

\* b. Employer/Taxpayer Identification Number (EIN/TIN):

161374219

\* c. Organizational DUNS:

6219129550000

d. Address:

\* Street1:

5795 Widewaters Pkwy

Street2:

2nd Fl

\* City:

Syracuse

County/Parish:

\* State:

NY: New York

Province:

\* Country:

USA: UNITED STATES

\* Zip / Postal Code:

13214 -1846

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

\* First Name:

Edward

Middle Name:

\* Last Name:

Michalenko

Suffix:

Ph.D

Title:

President

Organizational Affiliation:

\* Telephone Number:

315-472-2150

Fax Number:

\* Email:

emichalenko@oei2.org

## Application for Federal Assistance SF-424

### \* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

### \* 10. Name of Federal Agency:

Environmental Protection Agency

### 11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities  
Relating to the Clean Air Act

### \* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

\* Title:

Enhanced Air Quality Monitoring for Communities

### 13. Competition Identification Number:

Title:

### 14. Areas Affected by Project (Cities, Counties, States, etc.):

1234-OnondagaCountyMAP.pdf

Add Attachment

Delete Attachment

View Attachment

### \* 15. Descriptive Title of Applicant's Project:

A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424****16. Congressional Districts Of:**\* a. Applicant \* b. Program/Project 

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

**17. Proposed Project:**\* a. Start Date: \* b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="465,367.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="465,367.00"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:

Middle Name:

\* Last Name:

Suffix:

\* Title: \* Telephone Number:  Fax Number: \* Email: \* Signature of Authorized Representative:  \* Date Signed:

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006  
Expiration Date: 02/28/2022

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Enhanced Air Quality Monitoring for Communities	66.034	\$	\$	\$ 465,367.00	\$	\$ 465,367.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 465,367.00	\$	\$ 465,367.00

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# SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Enhanced Air Quality Monitoring for Communities				
a. Personnel	\$ 68,377.00	\$	\$	\$	\$ 68,377.00
b. Fringe Benefits	12,650.00				12,650.00
c. Travel	234.00				234.00
d. Equipment	67,543.00				67,543.00
e. Supplies	6,468.00				6,468.00
f. Contractual	0.00				0.00
g. Construction	0.00				0.00
h. Other	177,545.00				177,545.00
i. Total Direct Charges (sum of 6a-6h)	332,817.00				\$ 332,817.00
j. Indirect Charges	132,550.00				\$ 132,550.00
k. TOTALS (sum of 6i and 6j)	\$ 465,367.00	\$	\$	\$	\$ 465,367.00
7. Program Income	\$ 0.00	\$	\$	\$	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Enhanced Air Quality Monitoring for Communities	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
9.				
10.				
11.				
12. TOTAL (sum of lines 8-11)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 155,122.32	\$ 38,780.58	\$ 38,780.58	\$ 38,780.58	\$ 38,780.58
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	\$ 155,122.32	\$ 38,780.58	\$ 38,780.58	\$ 38,780.58	\$ 38,780.58

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. Enhanced Air Quality Monitoring for Communities	\$ 155,123.00	\$ 155,122.00		
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	\$ 155,123.00	\$ 155,122.00		

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: \$332,817.00	22. Indirect Charges: \$132,550.00
23. Remarks: Per 2020 Final NICRA: \$332,817-\$100,312 Sub & PSC Exclusions = \$232,505 * 57.01%; which will be updated upon receipt of 2022+ rate	

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## Project Narrative File(s)

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\* Mandatory Project Narrative File Filename:

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The following figures further support the unfortunate reality that neighborhoods that are the focus of this study suffer from multiple risks and harms. Lead poisoning and cancer risk from poor air quality far exceed the norm.



Figure 3: Showing a concomitant EJ threat, the Census Block based map shows high concentrations of homes with lead-based paint. Unsurprisingly, there are devastating rates of lead poisoning amongst the city's children. The impacts on Black children have been acutely catastrophic.<sup>1</sup>



Figure 4: This image displays the lifetime risk of area residents contracting cancer based on inhalation of air toxics. Again, multiple blocks within the project study area exceed the 80<sup>th</sup>+ percentile.

<sup>1</sup> Onondaga County Health Department. Lead Poisoning Prevention Data. <http://www.ongov.net/health/lead/data.html>



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, DC 20240

## Nonprofit Organization Indirect Cost Negotiation Agreement

**EIN:** 16-1374219

**Date:** 11/24/2021

**Organization:**

Onondaga Environmental Institute  
5795 Widewaters Parkway., 2nd Floor  
Syracuse, NY 13214

**Report Number:** 2021-0646

**Filing Ref:**

Last Negotiation Agreement  
dated: 10/20/2020

The indirect cost rates contained herein are for use on grants, contracts, and other agreements with the Federal Government to which Public Law 93-638 and/or 2 CFR Part 200 apply subject to the limitations contained in Section II.A. of this agreement. The rates were negotiated by the U.S. Department of the Interior, Interior Business Center, and the subject organization in accordance with the authority contained in applicable regulations.

### Section I: Rate

Start Date	End Date	Rate Type					
01/01/2020	12/31/2020	Final	Name	Rate	Base	Location	Applicable To
			Indirect	57.01 %	(A)	All	All Programs

**(A) Base:** Total direct costs, less capital expenditures and the portion of subawards in excess of the first \$25,000.

**Treatment of fringe benefits:** Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs.

**Treatment of paid absences:** Vacation, holiday, sick leave, and other paid absences are included in the indirect cost pool. No paid absences are directly charged to programs or projects.

## Section II: General

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- A. **Limitations:** Use of the rate(s) contained in this agreement is subject to any applicable statutory limitations. Acceptance of the rate(s) agreed to herein is predicated upon these conditions: (1) no costs other than those incurred by the subject organization were included in its indirect cost rate proposal, (2) all such costs are the legal obligations of the grantee/contractor, (3) similar types of costs have been accorded consistent treatment, and (4) the same costs that have been treated as indirect costs have not been claimed as direct costs (for example, supplies can be charged directly to a program or activity as long as these costs are not part of the supply costs included in the indirect cost pool for central administration).
- B. **Audit:** All costs (direct and indirect, federal and non-federal) are subject to audit. Adjustments to amounts resulting from audit of the cost allocation plan or indirect cost rate proposal upon which the negotiation of this agreement was based will be compensated for in a subsequent negotiation.
- C. **Changes:** The rate(s) contained in this agreement are based on the accounting system in effect at the time the proposal was submitted. Changes in the method of accounting for costs which affect the amount of reimbursement resulting from use of the rate(s) in this agreement may require the prior approval of the cognizant agency. Failure to obtain such approval may result in subsequent audit disallowance.
- D. **Rate Type:**
1. **Fixed Carryforward Rate:** The fixed carryforward rate is based on an estimate of the costs that will be incurred during the period for which the rate applies. When the actual costs for such period have been determined, an adjustment will be made to the rate for a future period, if necessary, to compensate for the difference between the costs used to establish the fixed rate and the actual costs.
  2. **Provisional/Final Rate:** Within six (6) months after year end, a final indirect cost rate proposal must be submitted based on actual costs. Billings and charges to contracts and grants must be adjusted if the final rate varies from the provisional rate. If the final rate is greater than the provisional rate and there are no funds available to cover the additional indirect costs, the organization may not recover all indirect costs. Conversely, if the final rate is less than the provisional rate, the organization will be required to pay back the difference to the funding agency.
  3. **Predetermined Rate:** A predetermined rate is an indirect cost rate applicable to a specified current or future period, usually the organization's fiscal year. The rate is based on an estimate of the costs to be incurred during the period. A predetermined rate is not subject to adjustment.
- E. **Rate Extension:** Only final and predetermined rates may be eligible for consideration of rate extensions. Requests for rate extensions of a current rate will be reviewed on a case-by-case basis. If an extension is granted, the non-Federal entity may not request a rate review until the extension period ends. In the last year of a rate extension period, the non-Federal entity must submit a new rate proposal for the next fiscal period.
- F. **Agency Notification:** Copies of this document may be provided to other federal offices as a means of notifying them of the agreement contained herein.
- G. **Record Keeping:** Organizations must maintain accounting records that demonstrate that each type of cost has been treated consistently either as a direct cost or an indirect cost. Records pertaining to the costs of program administration, such as salaries, travel, and related costs, should be kept on an annual basis.
- H. **Reimbursement Ceilings:** Grantee/contractor program agreements providing for ceilings on indirect cost rates or reimbursement amounts are subject to the ceilings stipulated in the contract or grant agreements. If the ceiling rate is higher than the negotiated rate in Section I of this agreement, the negotiated rate will be used to determine the maximum allowable indirect cost.
- I. **Use of Other Rates:** If any federal programs are reimbursing indirect costs to this grantee/contractor by a measure other than the approved rate(s) in this agreement, the grantee/contractor should credit such costs to the

**Section II: General (continued)**

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affected programs, and the approved rate(s) should be used to identify the maximum amount of indirect cost allocable to these programs.

**J. Other:**

1. The purpose of an indirect cost rate is to facilitate the allocation and billing of indirect costs. Approval of the indirect cost rate does not mean that an organization can recover more than the actual costs of a particular program or activity.
2. Programs received or initiated by the organization subsequent to the negotiation of this agreement are subject to the approved indirect cost rate(s) if the programs receive administrative support from the indirect cost pool. It should be noted that this could result in an adjustment to a future rate.
3. This Negotiation Agreement is entered into under the terms of an Interagency Agreement between the U.S. Department of the Interior and the cognizant agency. No presumption of federal cognizance over audits or indirect cost negotiations arises as a result of this Agreement.
4. Organizations that have previously established indirect cost rates—exclusive of the 10% *de minimis* rate—must submit a new indirect cost proposal to the cognizant agency for indirect costs within six (6) months after the close of each fiscal year.

### Section III: Acceptance

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Listed below are the signatures of acceptance for this agreement:

By the Nonprofit Organization

Onondaga Environmental Institute

---

DocuSigned by:  
*Edward M. Michalenko*  
F0A445C738FF412...

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Signature

Edward Michalenko

---

Name:

President

---

Title:

11/30/2021

---

Date

By the Cognizant Federal Government Agency

US Environmental Protection Agency

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DocuSigned by:  
*Craig Wills*  
B47DB1F4A5DB4BF...

---

Signature

Craig Wills

---

Name:

Division Chief  
Indirect Cost Services Division  
Interior Business Center

---

Title:

11/30/2021

---

Date

Negotiated by: Kasi Upchurch  
Telephone: (916) 930-3809

INTERNAL REVENUE SERVICE  
DISTRICT DIRECTOR  
P. O. BOX 2508  
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: JUN 30 1999

ONONDAGA LAKE CLEANUP CORP  
100 S CLINTON ST  
SYRACUSE, NY 13261

Employer Identification Number:  
16-1374219  
DLN:  
17053149757009  
Contact Person:  
TIMOTHY ZIMMER ID# 31263  
Contact Telephone Number:  
(877) 829-5500  
Our Letter Dated:  
October 1994  
Addendum Applies:  
No

Dear Applicant:

This modifies our letter of the above date in which we stated that you would be treated as an organization that is not a private foundation until the expiration of your advance ruling period.

Your exempt status under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3) is still in effect. Based on the information you submitted, we have determined that you are not a private foundation within the meaning of section 509(a) of the Code because you are an organization of the type described in section 509(a)(1) and 170(b)(1)(A)(vi).

Grantors and contributors may rely on this determination unless the Internal Revenue Service publishes notice to the contrary. However, if you lose your section 509(a)(1) status, a grantor or contributor may not rely on this determination if he or she was in part responsible for, or was aware of, the act or failure to act, or the substantial or material change on the part of the organization that resulted in your loss of such status, or if he or she acquired knowledge that the Internal Revenue Service had given notice that you would no longer be classified as a section 509(a)(1) organization.

If we have indicated in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

Because this letter could help resolve any questions about your private foundation status, please keep it in your permanent records.

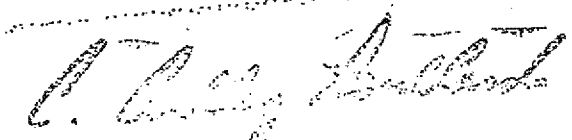
We have sent a copy of this letter to your representative as indicated in your power of attorney.

Letter 1050 (DO/CG)

ONONDAGA LAKE CLEANUP CORP

If you have any questions, please contact the person whose name and telephone number are shown above.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "T. J. [unclear]", is written over a horizontal line.

District Director

Letter 1050 (DO/CG)



INTERNAL REVENUE SERVICE  
DISTRICT DIRECTOR  
G.P.O. BOX 1680  
BROOKLYN, NY 11202

DEPARTMENT OF THE TREASURY

Date: OCT 17 1994

ONONDAGA LAKE CLEANUP CORP.  
C/O ONONDAGA LAKE MANAGEMENT  
CONFERENCE  
100 CLINTON STREET, SUITE 541  
P.O. BOX 7136  
SYRACUSE, NY 13261

Employer Identification Number:  
16-1874219  
Case Number:  
114266028  
Contact Person:  
JACQUELINE C TURPIN  
Contact Telephone Number:  
(716) 488-2223

Accounting Period Ending:  
December 31  
Foundation Status Classification:  
509(a)(1)  
Advance Ruling Period Begins:  
April 26, 1994  
Advance Ruling Period Ends:  
December 31, 1998  
Addendum Applies:  
Yes

Dear Applicant:

Based on information you supplied, and assuming your operations will be as stated in your application for recognition of exemption, we have determined you are exempt from federal income tax under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3).

Because you are a newly created organization, we are not now making a final determination of your foundation status under section 509(a) of the Code. However, we have determined that you can reasonably expect to be a publicly supported organization described in sections 509(a)(1) and 170(b)(1)(A)(vi).

Accordingly, during an advance ruling period you will be treated as a publicly supported organization, and not as a private foundation. This advance ruling period begins and ends on the dates shown above.

Within 90 days after the end of your advance ruling period, you must send us the information needed to determine whether you have met the requirements of the applicable support test during the advance ruling period. If you establish that you have been a publicly supported organization, we will classify you as a section 509(a)(1) or 509(a)(2) organization as long as you continue to meet the requirements of the applicable support test. If you do not meet the public support requirements during the advance ruling period, we will classify you as a private foundation for future periods. Also, if we classify you as a private foundation, we will treat you as a private foundation from your beginning date for purposes of section 507(d) and 4940.

Grantors and contributors may rely on our determination that you are not a private foundation until 90 days after the end of your advance ruling period. If you send us the required information within the 90 days, grantors and contributors may continue to rely on the advance determination until we make a final determination of your foundation status.

Letter 1045 (DO/CB)

ED\_013931A\_00000497-00003

ONONDAGA LAKE CLEANUP CORP.

If we publish a notice in the Internal Revenue Bulletin stating that we will no longer treat you as a publicly supported organization, grantors and contributors may not rely on this determination after the date we publish the notice. In addition, if you lose your status as a publicly supported organization, and a grantor or contributor was responsible for, or was aware of, the act or failure to act, that resulted in your loss of such status, that person may not rely on this determination from the date of the act or failure to act. Also, if a grantor or contributor learned that we had given notice that you would be removed from classification as a publicly supported organization, then that person may not rely on this determination as of the date he or she acquired such knowledge.

If you change your sources of support, your purposes, character, or method of operation, please let us know so we can consider the effect of the change on your exempt status and foundation status. If you amend your organizational document or bylaws, please send us a copy of the amended document or bylaws. Also, let us know all changes in your name or address.

As of January 1, 1984, you are liable for social securities taxes under the Federal Insurance Contributions Act on amounts of \$100 or more you pay to each of your employees during a calendar year. You are not liable for the tax imposed under the Federal Unemployment Tax Act (FUTA).

Organizations that are not private foundations are not subject to the private foundation excise taxes under Chapter 42 of the Internal Revenue Code. However, you are not automatically exempt from other federal excise taxes. If you have any questions about excise, employment, or other federal taxes, please let us know.

Donors may deduct contributions to you as provided in section 170 of the Internal Revenue Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Donors may deduct contributions to you only to the extent that their contributions are gifts, with no consideration received. Ticket purchases and similar payments in conjunction with fundraising events may not necessarily qualify as deductible contributions, depending on the circumstances. Revenue Ruling 67-246, published in Cumulative Bulletin 1967-2, on page 104, gives guidelines regarding when taxpayers may deduct payments for admission to, or other participation in, fundraising activities for charity.

Contributions to you are deductible by donors beginning April 26, 1994.

You are not required to file Form 990, Return of Organization Exempt From Income Tax, if your gross receipts each year are normally \$25,000 or less. If you receive a Form 990 package in the mail, simply attach the label provided, check the box in the heading to indicate that your annual gross receipts are normally \$25,000 or less, and sign the return.

Letter 1045 (DO/CG)

ONONDAGA LAKE CLEANUP CORP.

If you are required to file a return you must file it by the 15th day of the fifth month after the end of your annual accounting period. We charge a penalty of \$10 a day when a return is filed late, unless there is reasonable cause for the delay. However, the maximum penalty we charge cannot exceed \$5,000 or 5 percent of your gross receipts for the year, whichever is less. We may also charge this penalty if a return is not complete. So, please be sure your return is complete before you file it.

You are not required to file federal income tax returns unless you are subject to the tax on unrelated business income under section 511 of the Code. If you are subject to this tax, you must file an income tax return on Form 990-T, Exempt Organization Business Income Tax Return. In this letter we are not determining whether any of your present or proposed activities are unrelated trade or business as defined in section 513 of the Code.

You need an employer identification number even if you have no employees. If an employer identification number was not entered on your application, we will assign a number to you and advise you of it. Please use that number on all returns you file and in all correspondence with the Internal Revenue Service.

In accordance with section 508(a) of the Code, the effective date of this determination letter is April 26, 1994.

This determination is based on evidence that your funds are dedicated to the purposes listed in section 501(c)(3) of the Code. To assure your continued exemption, you should keep records to show that funds are spent only for those purposes. If you distribute funds to other organizations, your records should show whether they are exempt under section 501(c)(3). In cases where the recipient organization is not exempt under section 501(c)(3), you must have evidence that the funds will remain dedicated to the required purposes and that the recipient will use the funds for those purposes.

If we said in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

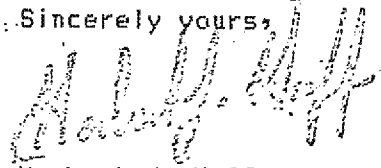
Because this letter could help us resolve any questions about your exempt status and foundation status, you should keep it in your permanent records.

We have sent a copy of this letter to your representative as indicated in your power of attorney.

ONONDAGA LAKE CLEANUP CORP.

If you have any questions, please contact the person whose name and telephone number are shown in the heading of this letter.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'Herb J. Huff', written in a cursive style.

Herbert J. Huff  
District Director

Enclosure(s):  
Addendum  
Form 872-C

Letter 1045 (DD/CG)

ONONDAGA LAKE CLEANUP CORP.

Since you have not indicated that you intend to finance your activities with the proceeds of tax exempt bond financing, in this letter we have not determined the effect of such financing on your tax exempt status.

Please be advised that prior to April 26, 1994 the organization is exempt under Section 501(c)(4) of the Code.

Letter 1045 (DD/CG)

ED\_013931A\_00000497-00007



## Division of Research

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2nd Floor  
Syracuse, NY 13214

March 15, 2022

Dear Dr. Michalenko:

The State University of New York College of Environmental Science and Forestry (SUNY-ESF) enthusiastically supports your Environmental Protection Agency proposal entitled, "A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods", submitted by the Onondaga Earth Institute in partnership with two SUNY-ESF researchers (Drs. Jaime Mirowsky and Lemir Teron) and other local community-based groups.

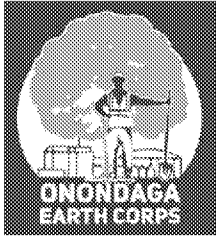
The neighborhoods surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The focus of the proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health.

With respect to SUNY-ESF researchers, they will contribute to this proposal by establishing and being members of a community monitoring advisory group, maintaining and setting up permanent ambient air quality monitors in affected areas, and working with OEI in developing an outreach campaign that connects residents to real time information about air quality. SUNY-ESF believes this project will provide crucial air quality data and a lasting community framework for understanding and using the information in a manner that positively impacts community health and well-being.

Thank you for considering this proposal. Please let me know if you have any questions.

Sincerely,

John C. Stella, PhD  
Vice President for Research  
Professor, Department of Sustainable Resources Management  
SUNY College of Environmental Science and Forestry  
200 Bray Hall • 1 Forestry Drive • Syracuse, NY 13210 (USA)  
Phone: +1 315-470-6609 • Email: stella@esf.edu



Onondaga Earth Corps | 100 New St Rm 239 | Syracuse, NY 13202 | 315-565-3797  
onondagaeearthcorps@gmail.com | www.onondagaeearthcorps.org

March 14<sup>th</sup>, 2022

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2<sup>nd</sup> Floor  
Syracuse, NY 13214

Dear Dr. Michalenko:

Onondaga Earth Corps enthusiastically supports the proposal to the Environmental Protection Agency entitled, *"A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods"* led by Onondaga Environmental Institute (OEI) in partnership with the State University of New York, College of Environmental Science and Forestry (SUNY ESF) and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District and SUNY Upstate Medical University. This diverse team of partners is committed to and rooted in Syracuse. Collectively we have expertise in air quality, human health, environmental injustice, community outreach, education, and workforce and youth development. We have also worked closely together for multiple years on other environmental projects, including youth-led air quality monitoring, reforestation, and green infrastructure maintenance.

The neighborhoods surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The focus of the proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health. The team proposes to do this by establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues through-out the neighborhood.

OEC believes this project will provide crucial air quality data and a lasting community framework for understanding and using the information in a manner that positively impacts community health and well-being. OEC is excited to serve on the community advisory group as well as engage our youth, young adults and community partners in community driven outreach that will include trainings on using hand-held air quality monitors and accessing and understanding an air quality dashboard.

We support the OEI and its partners in this effort to establish and implement community-based air quality monitoring and education in the City of Syracuse. Should you have any questions, concerns or require further information, please contact me at your convenience.

Sincerely,

Gregory Michel  
Executive Director



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## Focusing Our Resources for Community Enlightenment

---

March 11, 2022

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2<sup>nd</sup> Floor  
Syracuse, NY 13214

Dear Dr. Michalenko:

Focusing Our Resources for Community Enlightenment, Inc. (FORCE) enthusiastically supports the proposal to the Environmental Protection Agency entitled, "*A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods*" led by Onondaga Environmental Institute (OEI) in partnership with the State University of New York, College of Environmental Science and Forestry (SUNY ESF), Focusing our Resources for Community Enlightenment (FORCE), and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District and SUNY Upstate Medical University. This diverse team of partners is committed to and rooted in the community. Collectively they have expertise in air quality, human health, environmental injustice, community outreach, education, and workforce development, as well as experience working with each other.

The neighborhoods surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The focus of the proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health. The team proposes to do this by establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues throughout the neighborhood.

FORCE believes this project will provide crucial air quality data and a lasting community framework for understanding and using the information in a manner that positively impacts community health and well-being. We are truly excited to be part of this coalition of organizations working on air quality issues as major changes with Interstate 81 and public housing in our neighborhood are on the horizon.

As a grassroots community organization, FORCE is prepared to use our experience in grassroots community outreach to educate our neighbors about air quality issues and health through workshops, tabling and various forms of media.

We support the OEI and all of the partners in this effort to establish and implement community-based air quality monitoring and education in the City of Syracuse. Should you have any questions, concerns or require further information, please contact me at your convenience.

Sincerely,

Brenda Muhammad  
Executive Director



18 March, 2022

Edward Michalenko, PhD  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2nd Fl  
Syracuse, NY 13214

Dear Dr. Michalenko

The Central New York Children's Environmental Health Center (CNYCEHC) is pleased to offer support of your EPA grant proposal to monitor air pollution in the community surrounding Interstate-81 (I-81) in Syracuse, New York, titled "A community-based approach to air quality monitoring and education in EJ neighborhoods". As you know, I-81 is a major roadway that was built through central NY over fifty years ago. The viaduct portion of I-81 was built through the 15<sup>th</sup> ward of Syracuse, a small but vibrant Black community, segregating that community and leading to socioeconomic disadvantage and environmental injustice. The community has faced increased noise and air pollution, resulting in poor health outcomes such as disproportionate rates of asthma. The viaduct is due to be replaced, and the surrounding community is understandably concerned about the health effects of the project, both during and after construction, and community members have implored our Children's Environmental Health Center to act. Your proposal would provide great benefit to the community, by both improving the health of the community and, importantly, giving the community members more agency in their health, which has unfortunately been taken from them in the past. We anticipate this project would synergize well with our core mission.

CNYCEHC is part of a state-funded network of pediatric environmental health experts who are committed to mitigating environmental conditions that contribute to illness in pediatric populations throughout New York. The Center is located at SUNY Upstate Golisano Children's Hospital, the only academic children's hospital in the region, giving us access to significant clinical and research expertise. Environmental health screening – the systematic identification of environmental problems affecting the health of families – is an integral part of the work performed by our Center. Once hazards are identified, we counsel health care professionals and their patients about best practices for prevention, mitigation, and management of the health effects. In addition, we are able to connect affected families with community partners who help promote programs and policies that protect and improve children's health. Finally, we work to proactively educate families, health care providers, and policy makers about environmental hazards in the community.

Environmental monitoring and research, as you propose, would allow us to more effectively identify environmental hazards in local communities. With quantitative data you provide, we could counsel families and health care providers on local, real-time health risks; without it, potential hazards will remain unknown, and families will remain unaware. These data could also help us guide the NYS Department of Transportation and other state and federal partners as they consider the environmental impacts on local children and their families, both during and after reconstruction of I-81. We have already been working with other experts at SUNY Upstate Medical University around helping the community navigate these health risks, and we expect these partnerships to continue. We are also actively exploring further ways to work with community partners to improve environmental health and welcome this new opportunity. As medical director of our Center, I would be pleased to serve on a community advisory board for your project or contribute in any other way you deem helpful.

We thank you for your time and consideration, and we enthusiastically support your application. We believe it will have a meaningful impact on our community and we look forward to working with you and the community. Please feel free to contact us with further questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Travis Hobart".

Travis R. Hobart, MD, MPH, FAAP  
Medical Director  
Central New York Children's Environmental Health Center  
Central/Eastern New York Regional Lead Resource Center  
Assistant Professor  
Department of Pediatrics  
Department of Public Health and Preventive Medicine  
SUNY Upstate Medical University



# SYRACUSE CITY SCHOOL DISTRICT

Jaime Alicea, Superintendent of Schools

Office of the Superintendent

March 8, 2022

RECEIVED  
MAR 10 2022

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2<sup>nd</sup> Floor  
Syracuse, NY 13214

BY: EMM

Dear Dr. Michalenko:

The Syracuse City School District enthusiastically supports the proposal to the Environmental Protection Agency entitled, "*A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods*" led by Onondaga Environmental Institute (OEI) in partnership with the State University of New York, College of Environmental Science and Forestry (SUNY ESF) and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District, SUNY Upstate Medical University and the City of Syracuse. This diverse team of partners is committed to and rooted in the community. Collectively they have expertise in air quality, human health, environmental injustice, community outreach, education, and workforce development, as well as experience working with each other.

The neighborhoods surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The focus of the proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health. The team proposes to do this by establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues through-out the neighborhood.

The Syracuse City School District believes this project will provide crucial air quality data and a lasting community framework for understanding and using the information in a manner that positively impacts community health and well-being. We are pleased that SCSD students will be engaged in placed-based lessons that can further their STEM knowledge.

We support the OEI and its partners in this effort to establish and implement community-based air quality monitoring and education in the City of Syracuse. We look forward to the opportunity to collaborate on this project. Should you have any questions, concerns or require further information, please contact me at your convenience.

Sincerely,

Jaime Alicea  
Superintendent of Schools



# DEPARTMENT OF PARKS, RECREATION & YOUTH PROGRAMS

CITY OF SYRACUSE, MAYOR BEN WALSH

March 3, 2022

**Julie LaFave**  
Commissioner

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2<sup>nd</sup> Floor  
Syracuse, NY 13214

Dear Dr. Michalenko:

Syracuse Parks enthusiastically supports the proposal to the Environmental Protection Agency entitled, "*A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods*" led by Onondaga Environmental Institute (OEI) in partnership with the State University of New York, College of Environmental Science and Forestry (SUNY ESF) and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District, SUNY Upstate Medical University and the City of Syracuse. This diverse team of partners is committed to and rooted in the community. Collectively they have expertise in air quality, human health, environmental injustice, community outreach, education, and workforce development, as well as experience working with each other.

The neighborhoods surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The focus of the proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health. The team proposes to do this by establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues through-out the neighborhood.

Syracuse Parks believes this project will provide crucial air quality data and a lasting community framework for understanding and using the information in a manner that positively impacts community health and well-being.

We support OEI and its partners in this effort to establish and implement community-based air quality monitoring and education in the City of Syracuse. We look forward to the opportunity to collaborate on this project. Should you have any questions, concerns or require further information, please contact me at your convenience.

Sincerely,

Stephen Harris, City Arborist  
ISA Arborist & Municipal Specialist

Syracuse Department  
of Parks, Recreation  
& Youth Programs  
412 Spencer Street  
Syracuse, N.Y. 13204

Office 315 473 4330  
Fax 315 428 8513

[www.syr.gov.net](http://www.syr.gov.net)

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PAMELA J. HUNTER  
Assemblywoman, 128<sup>th</sup> District  
Onondaga County

THE ASSEMBLY  
STATE OF NEW YORK  
ALBANY

CHAIR  
Subcommittee on Women Veterans

COMMITTEES  
Energy  
Insurance  
Social Services  
Transportation  
Veterans' Affairs

March 10, 2022

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2<sup>nd</sup> Floor  
Syracuse, NY 13214

Dear Dr. Michalenko:

I enthusiastically support the proposal to the Environmental Protection Agency entitled, "*A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods*" led by Onondaga Environmental Institute (OEI) in partnership with the State University of New York, College of Environmental Science and Forestry (SUNY ESF) and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District and SUNY Upstate Medical University. This diverse team of partners is committed to and rooted in my community. They have unmatched expertise in air quality, human health, environmental injustice, community outreach, education, and workforce development. These organizations have worked well together in the past and I anticipate they will continue to do so.

The communities surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The goal of their proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health. The team will do this by establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues through-out the neighborhood.

I support the OEI and its partners in this effort to establish and implement community-based air quality monitoring and education in the City of Syracuse. Should you have any questions, concerns or require further information, please contact me at your convenience.

Sincerely,

Pamela J. Hunter  
Assembly Member, 128<sup>th</sup> District



WILLIAM B. MAGNARELLI  
Assemblyman 129<sup>th</sup> District

THE ASSEMBLY  
STATE OF NEW YORK  
ALBANY

CHAIR  
Committee on Transportation

COMMITTEES  
Economic Development, Job Creation,  
Commerce and Industry  
Education  
Rules  
Oversight, Analysis and Investigation  
Steering  
Ways and Means

March 4, 2022

Dr. Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2<sup>nd</sup> Floor  
Syracuse, NY 13214

Dear Dr. Michalenko,

I am writing in support of the Onondaga Environmental Institute (OEI) concerning their project proposal to the Environmental Protection Agency (EPA) entitled "*A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods*" led by OEI in partnership with the State University of New York, College of Environmental Science and Forestry (SUNY ESF) and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District and SUNY Upstate Medical University. This diverse team of partners is committed to and rooted in the community. Collectively they have expertise in air quality, human health, environmental injustice, community outreach, education, and workforce development, as well as experience working with each other.

The neighborhoods surrounding Interstate 81 in the City of Syracuse have suffered disproportionate and adverse health outcomes due to a myriad of environmental and economic injustices. The focus of the proposal is to establish and support a community-based framework to address poor air quality caused by particulate matter in order to improve individual and community health. The team proposes to do this by establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues through-out the neighborhood.

I support OEI and its partners in this effort to establish and implement community-based air monitoring and education in the City of Syracuse. I believe this project will provide crucial air quality data and a lasting community framework for understanding and using the information in a manner that positively impacts community health and well-being. Should you have any questions, please reach out to me or Dan Petrick of my office regarding this matter.

Sincerely,

William B. Magnarelli  
Member, NYS Assembly  
129<sup>th</sup> District

WBM/dep

DISTRICT OFFICE: State Office Building, 333 East Washington Street, Room 840, Syracuse, New York 13202 • 315-428-9651 • FAX: 315-428-1279  
ALBANY OFFICE: Room 830, Legislative Office Building, Albany, New York 12248 • 518-455-4826 • FAX: 518-455-5498  
magnarw@nyassembly.gov

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THE SENATE  
STATE OF NEW YORK

ALBANY OFFICE  
814 LEGISLATIVE OFFICE BUILDING  
ALBANY, NEW YORK 12247  
PHONE 518-455-3511

E-MAIL  
mannion@nysenate.gov



SENATOR JOHN W. MANNION  
50<sup>TH</sup> DISTRICT

DISTRICT OFFICE  
STATE OFFICE BUILDING - ROOM 800  
333 EAST WASHINGTON STREET  
SYRACUSE, NEW YORK 13202  
PHONE 315-428-7632  
FAX 315-472-4157

Edward Michalenko, PhD, President  
Onondaga Environmental Institute  
5795 Widewaters Pkwy, 2nd Floor  
Syracuse, NY 13214

RE: Support for Onondaga Environmental Institute's proposal for project: "A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods"

Dear Dr. Michalenko:

I am writing in support of the Onondaga Environmental Institute's (OEI) proposal for the project "A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods." Though OEI is leading this effort, they are partnering with State University of New York, College of Environmental Science and Forestry (SUNY ESF) and the Onondaga Earth Corps (OEC), and with support from the Syracuse City School District and SUNY Upstate Medical University. This group of partners represents expertise in relevant areas such as air quality, health, environmental justice, education, and workforce development. In addition to this expertise, these partners have a strong connection to the Central New York community and have worked closely on other projects with great success.

As we embark on a project to reimagine transit in the region without I-81, community leaders are exploring ways to improve the quality of life and health for the surrounding neighborhoods, many of which are majority minority and low income. To that end, the goal of this particular proposal is to establish a community-based program to address the poor air quality in the region. The plan includes establishing a community monitoring advisory group, setting up permanent ambient air quality monitors in affected areas, developing an outreach campaign that connects residents to real time information about air quality, and providing hand-held air quality sensors and educational opportunities in a variety of formats and venues through-out the neighborhood.

These efforts will provide critical air quality data and a lasting framework for educating the community in understanding and taking advantage of this data to improve health outcomes for residents. Overall, I believe that this project will better the lives of our neighbors and could serve as an example to communities around the country dealing with similar challenges.

I am proud to support OEI and its partners in this endeavor and I appreciate your consideration.

With gratitude,

A handwritten signature in black ink that reads "John W. Mannion". The signature is fluid and cursive, with a large initial 'J'.

Senator John W. Mannion  
New York State Senate, 50<sup>th</sup> District

## I. Cover Page:

**Project Title:** A Community Based Approach to Air Quality Monitoring and Education in EJ Neighborhoods

### **Applicant Information:**

Onondaga Environmental Institute, Inc.

5795 Widewaters Pkwy, 2nd Fl, Syracuse, NY 13214 -1846

Edward M. Michalenko, Ph.D., President; 315-472-2150; emichalenko@oei2.org

DUNS: 621912955

**Set-Aside:** no set-aside

**Brief Description of Applicant Organization:** The mission of the Onondaga Environmental Institute (OEI) is to advance environmental research, education, planning and restoration in Central New York. OEI seeks responsible stewardship of the local environs as a means to achieving the overall goal of sustainability.

### **Project Partner(s):**

State University of New York College of Environmental Science and Forestry (SUNY ESF), Dr. Jaime Mirowsky, Dr. Lemir Teron

Onondaga Earth Corps (OEC), Greg Michel

City of Syracuse, Stephen Harris

Focusing Our Resources for Community Enlightenment (FORCE), Brenda Muhammad

Syracuse City School District (SCSD), Dana Corcoran

SUNY Upstate Medical University, Travis R. Hobart, MD, MPH, FAAP

**Project Location:** South and Southwest neighborhoods of Syracuse, N.Y including but not limited to 13210, 13202, 13205 and 13207

**Air Pollutant Scope:** Particle pollution with a focus on PM 2.5

### **Budget Summary:**

EPA Funding Requested	Total Project Cost
\$465,367	\$465,367

**Project Period:** 1/1/23-12/31/25

**Short Project Description:** Working with an advisory group, the project will create a community-based education and outreach campaign that will provide accessible air quality data through a web-based dashboard. Residents and communities can use the information to protect individual and community health and advocate for effective solutions.



## II. Workplan:

### Section 1 - Project Summary and Approach

#### A. Overall Project

This project is a collaborative effort between the Onondaga Environmental Institute (OEI), the State University of New York College of Environmental Science and Forestry (SUNY ESF), the Onondaga Earth Corps (OEC), Focusing Our Resources for Community Enlightenment (FORCE), the Syracuse City School District (SCSD), the City of Syracuse (CoS), and the State University of New York Upstate Medical University (SUNY UMU). To do this, we are leveraging the existing air quality monitoring expertise of the researchers at SUNY ESF, the medical expertise of physicians at SUNY UMU, the science education expertise of OEI and SCSD with the community-based network already in place by the OEI, SUNY ESF, OEC, and FORCE. Integral to this proposal, we will use a variety of approaches that give the community a voice in the monitoring of their air quality (AQ) to more specifically build a foundation of trusting relationships and enhanced understanding from which sustainable solutions to community air pollution problems can be found.

Our specific goals are: 1. Establish a community-based framework to address air quality issues in communities historically impacted by Interstate 81; 2. Set up a permanent AQ monitoring system that will provide long term data on particulate matter to understand events and situations that affect local AQ in the EJ neighborhoods; 3. Foster resident engagement with AQ information to promote better community and individual health outcomes; 4. Provide air quality monitoring tools and education in an underserved EJ community to expose residents to STEM skill sets that can lead to enhanced incomes and careers and 5. Inform decision makers, planners, and policy managers with data for sustainable future development and smart growth. A summary of our plan is as follows:

*Advisory Group:* An advisory board will be created to support all aspects of project implementation. . This board will be composed of the three main project investigators, a representative from each community partner, and representatives from additional partners added over the course of the project. Quarterly meetings will allow us to discuss the capabilities of the project, foster synergies, and take an adaptive management approach to best respond to community concerns and ideas.

*Air quality monitoring plan and community engagement:* For this project, we are proposing a two-tiered approach to ambient AQ monitoring within the community. The first type of monitor selected will be a top-tier monitor (AQS-1 Urban Air Quality Monitor, Aeroqual) that will measure particulate matter with a diameter of less than 2.5 microns (PM<sub>2.5</sub>), wind speed, wind direction, barometric pressure, air temperature, and relative humidity. This monitor produces research-grade, high quality air pollution data. This top-tier monitor will be supplemented by 2 second-tier monitors (AQY-R, Aeroqual) that are of slightly lower quality and cost. Having these second-tier monitors spread throughout the community to complement and supplement the data from the top-tier monitor will allow us to increase the representativeness of the data being collected across the study area.

We believe it is important that the monitors are placed in areas where the community is most concerned about poor AQ. To balance getting good data quickly into the hands of the community with the ability for the community to be involved in the siting of the permanent stations, the advisory committee will use their knowledge of community AQ concerns and input from community activists to site the top tier monitor early in the project. The second-tier monitors will be selected by a larger cross-section of the community, with input from the advisory board within the first year of the project.

*Data dissemination and community engagement:* The AQ data from all the monitors will be disseminated using a public facing dashboard in connection with JustAir (justair.co) that is accessible via a website or QR code. Information will be shared via a community outreach campaign that will be piloted through a community input design process. Materials will then be modified and distributed as proscribed by the community through multiple outlets (e.g., banners, flyers, social media, organizations, church groups etc.).

*STEM education and career pathways: local schools, youth and neighborhood residents:* OEI with assistance from ESF will work with the SCSD to develop, pilot, and modify an AQ module rooted in the environmental justice (EJ) issues surrounding the routing of I-81 through a historically black neighborhood. Students will use low-cost, hand-held monitoring devices to evaluate indoor and outdoor PM and assess AQ and health, using the dashboard. Two modules will be developed, one for elementary and one for high school

students. Modules will be offered to teachers through professional development workshops and kits will be provided that contain the supplies needed to complete the module.

Youth employed by OEC and neighborhood residents will receive training in using the hand-held monitoring devices and education about AQ issues in Syracuse. They will use their training to monitor areas of their neighborhood which they hypothesize will have poor AQ. Based upon their findings, they will make recommendations on where to locate permanent AQ monitors. Those trained can borrow AQ backpack kits to sample further. Youth will also use their training to develop activities and outreach events for community youth while FORCE will host community conversations as a follow-up to neighborhood sampling.

## **B. Project Significance**

Even though Syracuse is the fifth most populated city in the state of New York, it ranks in the top ten poorest cities in the United States (US Census). Compared to nationwide averages, Syracuse has a lower percentage of high school graduates, population in the labor force, and median household income (US Census). Syracuse also has one of the largest racial poverty gaps in the US. Onondaga County, which is where Syracuse is located, is one of the top ten most segregated counties in the nation. It has also been noted that COVID-19 has exacerbated and intensified the long-standing structural inequalities observed in Syracuse. The segregation and poverty seen in Syracuse today stemmed from the building of I-81 which began in 1956 and resultantly bisected and segregated the city; forcing people from disadvantaged groups to live in the confines of the city near the newly built road. Over 60 years later, a one-mile elevated section of I-81 will be lowered to ground level creating a community grid. An environmental impact study was completed by the New York Department of Transportation (DOT) stated minimal changes in traffic-related air pollutants (e.g., PM2.5) would result. However, DOT's impact study stated that the volume of diesel vehicles would remain the same with the creation of the community grid, suggesting a large volume of polluting trucks will be driving through the heart of this EJ community at a high rate. This is concerning as diesel exhaust is classified as a Group 1 carcinogen by the International Agency for Research on Cancer. There are also major concerns that construction will have a detrimental environmental impact on this disadvantaged community, particularly as it relates to air quality. Furthermore, the asthma rates of students attending schools within the SCSD are higher than the state average, and respiratory disease is especially prevalent among Black residents living in this area. *Therefore, it is imperative for the health and safety of this community to have air quality monitors located near their homes, businesses, areas of recreation, and/or schools so they can make informed decisions about their actions (e.g., exercising, playing outdoors, etc.), during the demolition of I-81 and construction of the community grid.*

Community benefits of this project include: 1. An engagement process that gives community members voice and agency to address neighborhood AQ issues; 2. Previously sought after access to experts about the health effects of poor AQ; 3. Increasing STEM skills for youth and adults through community outreach and in-school education programs; 4. Providing any and all members of the community with easy and full access to the AQ data being collected. 5. The opportunity to use the data to inform public planning and elected officials to make sustainable future choices.

## **Section 2 - Community Involvement**

### **A. Community Partnerships**

This project promotes community benefits through engagement and partnerships via an Advisory Board composed of individuals and organizations based in the community, have AQ and public health expertise, and/or experience with science education and community outreach. The Advisory Board represents a wide cross-section of community interests and backgrounds vital for credibility and project success in EJ communities. Partnering organizations will play a vital role as part of the Advisory Board, as well as by contributing to specific project activities.

**SUNY ESF.** Assistant Professor Dr. Jaime Mirowsky (Chemistry and Environmental Health) has over 13 years of experience in air quality monitoring and analyzing the health impacts of exposures to air pollutants. Her expertise is in the collection and analysis of particulate matter. Dr. Lemir Teron (Assistant Professor of Environmental Studies) has worked on EJ and community planning issues in Syracuse since 2016. His expertise is in urban planning and environmental inequality, energy systems and life-cycle assessment, and urban community forestry. Both researchers have experience working on community projects.

**OEC** is a youth conservation corps rooted in the community whose mission is to empower youth to be active participants in creating positive change for their communities and the environment. OEC is known and respected in the community for the supportive opportunities they provide neighborhood youth that foster personal development, employment skills, and a healthy environment for the neighborhood. They have extensive experience in communicating environmental issues in the community, most recently co-leading the community input process for the Syracuse Urban Forest Master Plan. Together OEI and OEC will develop the youth community outreach piece, pilot the outreach/citizen science approach with crew members, and train crew members to offer public outreach events that teach youth about AQ, personal health, and using the handheld monitors to be citizen scientists. .

**CoS** has an urban forestry division that is actively supported by the Mayor, Common Council and the community. The recently released Forest Master Plan has a section on the public health benefits of trees in which the connection between trees, clean air and improved public and community health is made clear. Based upon a recent collaboration between OEI, OEC, ESF (Dr. Jaime Mirowsky) and the City, the City's urban forester would like to expand upon efforts to incorporate AQ concerns through the strategic planting of trees. For this reason, the urban forester will be the City's point person on the project, able to connect project partners to other City personnel as needed.

**FORCE** is a dynamic, volunteer driven, community-based nonprofit founded in 1996 by a small group of neighbors with the goal of tackling community problems by drawing on inner strengths to develop social and educational programs that enlighten and inspire residents to collective action. Their mission is to combat neighborhood deterioration by demonstrating how pooling resources can transform neighborhoods into decent places of living. FORCE will work with partners to develop community outreach components and offer AQ information and monitoring events that allow residents to understand neighborhood AQ in order to inform good community solutions. Working with the team will increase FORCE's capacity to address environmental impacts in the neighborhood as well as their administrative capacity.

**SCSD** is a high poverty district ranked in the bottom 50% for math and reading proficiency skills with a rank of 778 out of 785 NYS school districts. The SCSD, its teachers and students will benefit from the project by participating in STEM lessons based upon local AQ issues. OEI, the Science Coordinator and two teachers will work together to develop lessons and expand to additional classrooms. By putting STEM tools such as AQ monitors in the hands of -underserved populations of students, they can become more empowered to address environmental inequities in their neighborhood and gain knowledge about STEM-related careers.

**SUNY UMU** hosts community clinics that focus on respiratory health. The current prevalence of respiratory illness, particularly on the Southside of Syracuse, has previously been documented. Respiratory disease is most pronounced amongst the city's Black population, and citywide, asthma rates are higher than the state average in this population. The clinicians from SUNY UMU are interested in collaborating to provide patients with access to AQ data that they can use to protect their health. They will distribute outreach materials through their clinics, as well as contribute their expertise on the health component of the outreach materials.

## **B. Community Engagement**

The collaboration of project partners is the result of EJ work that began over a decade ago with the Onondaga Creek Revitalization Plan, the fight to address combined sewage overflows in a manner that did not further burden EJ communities, and the ensuing support by Onondaga County for sustainable, community-based environmental solutions. Separately and collectively, partners have worked with thousands of community members to plant thousands of trees, install hundreds of rain barrels, support the installation of community based GI and engage in community based environmental planning, and collaborate on education and outreach with SCSD. Most recently, partners have performed AQ monitoring in EJ communities to inform tree planting, expand urban forestry, and engage the public.

The formation of an advisory group and the selection of partners that form the initial core of the group has been intentional to ensure that local community members will be engaged in the design and performance of the proposed project. As detailed above, each of the partners has a community constituency with whom they have closely worked with for at least several years, as well as have expertise in air quality, public health, science education and/or community outreach.

The advisory group will use their knowledge of community AQ concerns to site one monitor early in the project. The additional two permanent monitors will be sited with input from community members who participate in AQ sampling workshops hosted by FORCE and OEC or those who complete surveys distributed by partners via neighborhood venues, print, and social media. Once sited, the data collected by all three monitors will be available via the online dashboard for not only the life of project as funded by EPA but into the future. OEI and ESF are committed to sustaining the project into the future. We will continue to host quarterly advisory group meetings. OEI will pay for the subscriptions and supplies necessary to maintain the AQ monitors and dashboard and Dr. Mirowsky will perform the necessary maintenance.

### Section 3 - Environmental Justice and Underserved Communities

This proposal places heightened emphasis on engagement, partnership, and outcome-driven community science dedicated to promoting EJ and health equality in high potential communities adjacent to the I-81 viaduct. We engage historically marginalized populations in citizen science and public health outreach to increase community capacity to detect, understand and mobilize against AQ threats. As this high potential community is disproportionately low-income, underserved residents of color, with a comparably prominent number of linguistically-isolated households to the rest of the city and region, they are at heightened risk of high exposure to environmental and health hazards and low access to community-led environmental monitoring. Our outreach and partnership strategy is predicated on project design, planning, and partnership with resilience-based community organizations (OEC, FORCE); further animated by collaboration with the SCSD, both as a location testing site as well as a focal point for community outreach and resident training. The AG will implement a series of public meetings and workshops to engage community members in project design and use of AQ technology, extend further outreach to illuminate the public on accessing data (via a publicly facing dashboard), and provide targeted opportunities for youth and adults to monitor, understand and ultimately act to reduce risk related to poor air quality. Furthermore, we will collaborate with medical professionals to share information most germane to high-risk patients.

The benefits to the local community, given the status quo environmental conditions (Figs.1 & 2 below, 3-5 EJ attachment), impending redevelopment of I-81, and the community science components of the project are immense. Based on pre-existing socioeconomic, racial, and health inequality within the project area, those with pre-existing respiratory issues and other health vulnerabilities are at a heightened impact from Covid-19 mortality<sup>i</sup> The following section illuminates on preexisting environmental and public health conditions in the project study area using EJSCREEN.

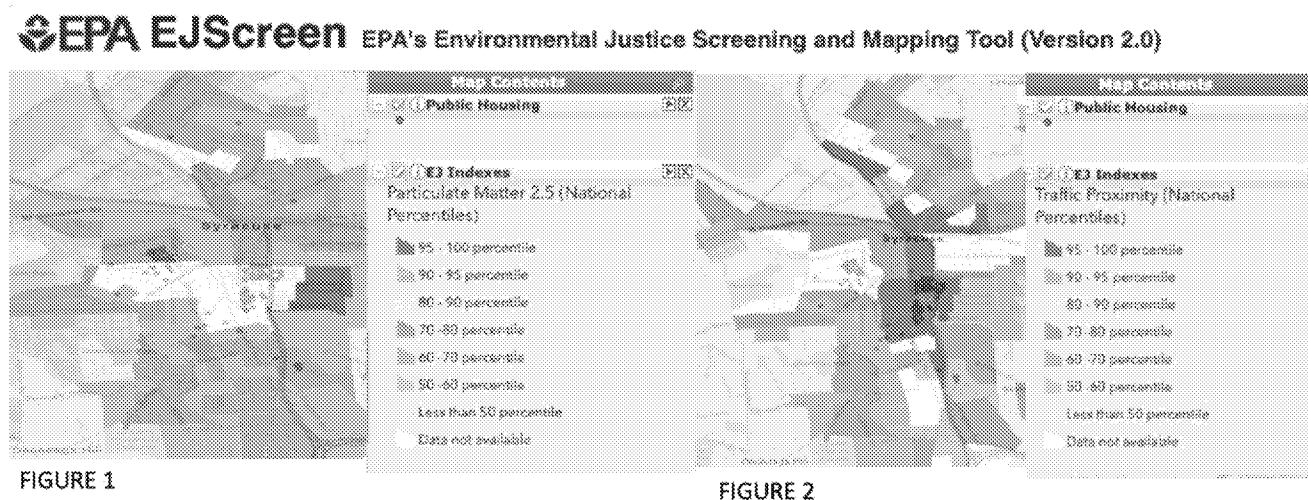


Figure 1: The concentration of public housing amongst Census blocks in the 80<sup>th</sup>+ percentile for PM2.5 concentrations using the EJSCREEN Environmental Justice Index.

Figure 2: Similar to Figure 1, using the traffic proximity index, this image overlays public housing in proximity to high traffic roadways and shows the abundance of housing in blocks within the 80<sup>th</sup>+ and 95<sup>th</sup>+ percentile for proximity.

## Section 4 - Environmental Results—Outcomes, Outputs and Performance Measures

### A. Expected Project Outputs and Outcomes

The expected project outputs and outcomes detailed in Table 1. and the activities associated with them as detailed throughout the application support EPA’s 2022-2026 Strategic plan. They specifically support Goal 4, Ensure Clean and Healthy Air for All Communities and Objective 4.1, “Improve Air Quality and Reduce Localized Pollution and Health Impacts” If our project is funded, we will work with EPA to engage a low-income, marginalized community in the City of Syracuse that has been overburdened with air pollution and other environmental hazards. Additionally, we see this project in alignment with the goals of the Justice 40 Initiative which advances environmental benefits in EJ communities.

Table 1. Project Outputs and Outcomes

Outputs	Outcomes		
	Scope of the problem will be understood & a baseline created from which to measure AQ changes	Individuals will understand how to access AQ information dashboard	Individual and community capacity to address & reduce env.& health risks related to AQ will increase
Deploy particulate monitoring devices	x		
Convene an advisory group to inform all aspects of the project:		x	X
Develop opportunities, such as public meetings/workshops to engage community members in the design of the project		x	X
Create a public outreach campaign to increase public participation in accessing & understanding AQ data		x	X
Create and provide STEM opportunities where youth and adults use monitors to understand AQ and reduce risk		x	X
Inform decision makers, planners and policy managers			X

## B. Performance Measures and Plan

Each partner in charge of the event or output will be required to keep records of performance measures tracked to be shared with OEI as part of the quarterly reporting. Please see section 6 below for more details. The following measures will be tracked quantitatively: monitors installed, AG meetings, AQ education design events, numbers of residents, youth, students engaged, lessons developed/piloted, teachers trained, dashboard/website/social media hits, print material distributed, AQ monitoring trainings, citizen scientists collecting data, and satisfaction surveys complete. Qualitative measures of performance will be obtained via written and verbal surveys of participants. We will also rely on EPA and agency officials, civic leaders, decision makers, planners and policy managers, teachers, workshop leaders or supervisor observation of youth and residents to evaluate understanding, impact, and transferability to other EJ communities. Discussions at AG meetings will also assist in evaluating progress toward outcomes and transferability to other EJ communities.

## C. Timeline and Milestones: **Milestones highlighted** **2023**

January-March	April-June	July-September	October-December
Project Team Meeting	Project Team Meeting	Project Team Meeting	Project Team Meeting
Contract with subs	Develop outreach campaign pilot	Pilot outreach	Begin outreach campaign
Convene Advisory Group	Convene Advisory Group	Convene Advisory Group	Convene Advisory Group
	Share draft outreach materials & dashboard with advisory group.	Modify draft outreach materials/dashboard based upon community feedback	Distribute outreach materials to live dashboard
Order Air QUAL. Systems	Finalize location for 1 Air QUAL systems and deploy		Finalize location and deploy remaining Air Qual systems
Begin discussions about AQ locations	Host a workshop with OEC crew members to gather ideas about and dashboard and location of monitors	AQ monitoring training workshops for OEC	
Engage additional partners	FORCE hosts an AQ input on process workshop	FORCE hosts Community kick-off event for pilot	Update AQ public dashboard based upon community feedback
		FORCE hosts AQ	FORCE hosts AQ

		monitoring training workshops	monitoring training workshops
		OEC hosts youth workshops	Summarize surveys and dashboard hits for year 1

## 2024

January-March	April-June	July-September	October-December
Convene Advisory Group	Convene Advisory Group	Convene Advisory Group	Convene Advisory Group
Develop draft lessons and kits for pilot with elementary students	Pilot lessons and kits	Finalize lessons & kits based upon pilot	Offer professional development opportunity for educators
Continue outreach campaign	Continue outreach campaign	Continue outreach campaign	Continue outreach campaign
	FORCE hosts AQ monitoring training workshops	FORCE hosts AQ monitoring training workshops	FORCE hosts AQ monitoring training workshops
	AQ monitoring training workshops for OEC	OEC hosts youth workshops	Summarize surveys and dashboard hits for year 2

## 2025

January-March	April-June	July-September	October-December
Convene Advisory Group	Convene Advisory Group	Convene Advisory Group	Convene Advisory Group
Develop draft lessons high school student	Pilot lessons and kits	Finalize lessons & kits based upon pilot	Summarize surveys dashboard hits total
Continue outreach campaign	Continue outreach campaign	Offer teacher professional development	Grant close-out
Advisory Group hosts conversations and events for partners and community to share results and lessons with decision makers.			

## Section 6 - Programmatic Capability and Past Performance

### C. Past Performance

OEI has demonstrated programmatic capability and specialized experience through its history of managing over 30 million dollars in funds over the past 30 years. OEI has administered a total of 19 grants from USEPA Region 2 under 6 separate lines of funding in addition to non-EPA funded agreements (i.e., US Fish and Wildlife Service, New York State Department of Environmental Conservation, Onondaga County, City of Syracuse, and private entities). Specifically, over the past 3 years, OEI has overseen the following assistance agreements:

- US Fish & Wildlife Service (USFWS) via National Fish and Wildlife Foundation (NFWF) 2016 Sustain Our Great Lakes (SOGL) Agreement No. 0501.16.52325: \$178,050
- US Fish and Wildlife Service (USFWS) 2017 Great Lakes Restoration Initiative (GLRI) Agreement No. F18AC00698: \$91,976
- NYS Department of Environmental Conservation (DEC) via Onondaga Earth Corps (OEC) 2016-2017 Environmental Justice Community Impact Grant for *Youth Exploration in Improving Air Quality*: \$23,000
- NYS Department of Environmental Conservation (DEC) 2018 Trees for Tribes Grant Agreement No. C00763GG: \$88,045
- NYS Department of Environmental Conservation (DEC) 2019 Mohawk River Watershed Grant Agreement No. C01224GG: \$64,186

OEI commits to track and report its own and subrecipients' (i.e., subawardees, subcontractors, vendors) achievement by comparing and evaluating tasks (i.e., what scope has been completed), expenditures (i.e., what budget has been consumed), & timing (i.e., where are we in our schedule) against the outputs and outcomes as well as milestones identified. This will be accomplished for subrecipients by requiring detailed payment requests, progress reports, and invoices, all accompanied by supporting documentation as necessary to approve. Subaward agreements will include monitoring plans outlining required reporting frequency and components, as well as terms and conditions concerning closeout of the subaward; and will reserve the right to withhold authority to proceed to the next phase until receipt of evidence of acceptable performance within a given period of performance; require more detailed financial reports; require additional project monitoring; require subrecipient to obtain technical or management assistance; and/or establish additional prior approvals. If at any point, the scope, budget or schedule is falling behind, OEI will take actions necessary to realign its efforts to expected outputs and outcomes; and will maintain open periodic communication with its grant specialist about this status.

## **B. Reporting Requirements**

OEI adequately and timely reported on progress towards achieving expected outputs and outcomes of these agreements per each agreement's specific schedule, substance, format, and submission requirements. OEI has submitted acceptable final technical reports and any required deliverables and products under the agreements that have been closed out. OEI maintains consistent communication with all agreements' project managers, project officers, and grant specialists, regarding progress towards achieving expected outputs and outcomes.

## **C. Staff Expertise**



**Edward M. Michalenko, Ph.D.**, has served as **President** of the OEI for 24 years, successfully administering grants from USEPA, USFWS, NYSDEC, Onondaga County, and others. Dr. Michalenko will serve as Project Manager and Quality Control/Quality Assurance Manager for all project-related tasks. Dr. Michalenko will also serve as liaison between project partners, stakeholders, agencies, and the community; helping to facilitate public outreach and participation. As the lead of the Onondaga Creek Revitalization Project, he has had extensive experience managing collaborative community planning projects.

**Amy Samuels, M.S.** is the **Education and Outreach Coordinator** for OEI. She received a M.S. in Science Education from SU in 1996, and a M.S. in Forest Biology from SUNY ESF in 2002. Ms. Samuels has over 20 years of experience in community-based science education. She has been working with OEC for the past 12 years on watershed ecology and green infrastructure programs. More recently she has been developing place-based science curriculum with teachers in the Mohawk Valley and Central NY, including the SCSD. Ms. Samuels enjoys working as part of a collaborative team and values the opportunity she had to be part of the Onondaga Creek Revitalization and Save the Rain teams.

**Stephanie L. Johnson, Ph.D.** is a **Project Scientist** for OEI. Dr. Johnson received a M.S. in Ecology from SUNY ESF in 2009, and a Ph.D. in Ecology from SUNY ESF in 2013. As Project Scientist, Dr. Johnson develops work plans; coordinates, manages, and executes field efforts; performs data management, analysis, and interpretation; and generates progress reports, and presentations. She assists with research-based curriculum development. Dr. Johnson is OEI's Quality Assurance/Quality Control (QA/QC) Officer, responsible for developing, implementing, and maintaining Quality Assurance Program, and Data Analysis & Interpretation Plans.

**JoAnna Mazur, Grants Administrator** is responsible for managing and coordinating all grants and related administrative duties for the OEI. JoAnna assists in project management by planning, managing, and finalizing OEI projects within established time frames and budget; and participates in planning, implementation, and evaluation of grant proposals. Additionally, GA oversees all sub-grants, contracts, and sponsorship programs of OEI. GA reviews all reimbursement requests for appropriateness and ensure that awardees are in compliance with established administrative and financial policies and procedures. GA works closely with Controller to ensure all financial activity related to OEI grants is accurately documented and maintained.

## **Section 7 - Budget**

### **A. Budget Detail and B. Reasonableness of Costs**

OEI Personnel is comprised of direct project labor by the Project Scientist, Grants Administrator, President, Education and Outreach Coordinator, and Educator. *The Project Scientist* will assist with AQ QA/QC and school curriculum development. *The Grants Administrator* will manage all financial, administrative and compliance aspects of the grant. *The President* will oversee the project providing project QA/QC and grant compliance, guidance on running the AG, liaise with decision makers, planners and policy managers and ensure that OEI is on track with administrative and program goals. *The Education and Outreach Coordinator* is responsible for convening and supporting the AG, coordinating and supporting all outreach program activities and taking the lead on education with the schools and development of outreach materials. *The Educator* is responsible for implementing the social media campaign and assisting with the development of outreach materials.

Per OEI's 2020 NICRA, Fringe Benefits are calculated at 18.5% of total Personnel. Equipment represents top-tier and mid-tier air quality monitoring systems including hardware, software, setup, and data visualization.

SUNY ESF will receive a subaward to serve on the AG, maintain monitors and provide AQ, EJ, and outreach assistance; with \$77,812 split evenly across Goals 1 and 2: *Community based framework* and *Foster resident engagement*, respectively, and \$25,000 in Goal 3: *STEM AQ outreach*.

OEC will receive a subaward to engage youth in AQ outreach and monitoring; with \$3000 in Goal 1 and \$22,000 in Goal 3.

Refreshments will follow federal and grant regulations regarding pre-approval, timing of events, and items allowed.

FORCE is an organization led by volunteers that will receive stipends to perform outreach at community meetings and events. These participant support costs have been excluded from Modified Total Direct Costs following EPA guidance.

All non-labor estimates are based upon recently obtained detailed quotes, market research, and prior experience with similar items and efforts.

Line Item & Itemized Cost	EPA Funding**
<b>Personnel</b>	
Project Scientist@\$36.05/hr*0.48hrs/wk*156wks	\$2,704
Grant Admin'r@\$27.95/hr*1.28hrs/wk*156wks	\$5,590
President@\$53.00/hr*0.96hrs/wk*156wks	\$7,950
Educ&Outreach Coord @\$37.05*6.19hrs/wk*156wks	\$35,753
Educator@\$18.00 /hr*5.83hrs/wk*156wks	\$16,380
<b>TOTAL PERSONNEL</b>	<b>\$68,377</b>
<b>Fringe Benefits</b>	
18.5% * Total Personnel - FICA, SDI, SUI, WorkComp, Group Life/Dis, Health Benefits	\$12,650
<b>TOTAL FRINGE BENEFITS</b>	<b>\$12,650</b>
<b>Travel</b>	
Mileage@50 trips * 8 mi/trip * 0.585/mi (128mi Goal 1, 176mi Goal 2, 96mi for Goal 3)	\$234
<b>TOTAL TRAVEL</b>	<b>\$234</b>
<b>Equipment</b>	
AQS air quality monitoring system	\$42,761
AQY-R micro air quality monitoring system	\$24,782
<b>TOTAL EQUIPMENT</b>	<b>\$67,543</b>
<b>Supplies</b>	
Hand-held AQ devices@50*\$99.25 -Goal 3	\$4,963
Kit supplies@((50packs*\$3.75)+(50clipboards*\$1.75)+(10storage bins*\$13)+(misc supplies-\$100) -Goal 3	\$505
Projector -Goal 2	\$250
Projector screen -Goal 2	\$250
Lithium batteries (for AQ monitors)@50*\$10 -Goal 3	\$500
<b>TOTAL SUPPLIES</b>	<b>\$6,468</b>
<b>Other</b>	
Subaward - SUNY ESF –Goals 1,2,3 (\$60,986 Personnel Jaime Mirowsky & Lemir Teron, \$20,611 Fringe, \$21,215 Indirects per negotiated indirect agreement)	\$102,812

Subaward - OEC –Goals 1,3 (\$16,451 Personnel: Program Coordinator, Crew Leader, Director, Personal Development Team Leader/Outreach Specialist, Crew Member (*3); \$4904 Fringe; \$372 Travel; \$1000 Outreach Materials/Supplies; \$2273 10% de minimus)	\$25,000
Refreshments@16 outreach events*\$50/event (8 ea Goals 2, 3)	\$800
Social media ads/boosts@50ads*\$50/ad –Goal 2	\$2,500
Bus Media campaign@10 shelter posters, 10 super tail wraps, 50 bus interior cards –Goal 2	\$10,000
Translation services@(5brochures*3languages*\$55)+(3banners*3languages*\$12)+(3flyers*\$25) –Goal 2	\$1,008
Graphic design services@(5trifold brochures*\$300) +(5flyers*\$75)+(6banners*\$150) Goal 2; + (10lessons*7pp*\$75/page Goal 3)	\$8,025
QR code subscription (3yrs*\$100/yr) –Goal 3	300
Printing@(10,000brochures*\$0.22 Goal 2)+(2000flyers*\$0.40 Goal 2)+(100pp*40modules*\$0.40 Goal 3)	\$4,600
Participant support costs-FORCE@ (30mtgs*5volunteers*\$50stipend: \$3000 Goal 1+\$4500 Goal 2)+(30events*5volunteers*\$100 stipend: \$15,000 Goal 2)	\$22,500
<b>TOTAL OTHER</b>	<b>\$177,545</b>
<b>Indirect Charges</b>	
Federal Indirect Cost Rate 57.01% * Modified Total Direct Costs \$232,504 = Indirect Costs	\$132,550
<b>TOTAL INDIRECT</b>	<b>\$132,550</b>
<b>TOTAL FUNDING</b>	<b>\$465,367</b>
<b>TOTAL PROJECT COST††</b>	<b>\$465,367</b>

### C. Expenditure of Awarded Funds

OEI will ensure any awarded grant funds will be expended in a timely and efficient manner by regularly tracking actual expenditures against the approved budget, including drawdown of labor hours per employee and all non-labor items, compared to outputs, outcomes, performance measures, timeline and milestones. If any budget items stray, the project team will immediately identify the deviation and perform steps necessary to realign. EPA will be notified in any case where realignment is proving to be an obstacle.

<sup>i</sup> Khayat, F., Teron, L., & Rasoulyan, F. (2021). COVID-19 and health inequality: the nexus of race, income and mortality in New York City. *International Journal of Human Rights in Healthcare*.

# Jaime E. Mirowsky, PhD

1 Forestry Drive ▪ Syracuse, NY 13210 ▪ jmirowsk@esf.edu ▪

Ex. 6 Personal Privacy (PP)

## EDUCATION

- 2010-2013 PhD, Environmental Health Science, Department of Environmental Medicine, New York University, New York, NY
- 2008-2010 MS, Environmental Health Science, Department of Environmental Medicine, New York University, New York, NY
- 2003-2007 BS, Chemistry (ACS Certified), Department of Chemistry, James Madison University, Harrisonburg, VA

## EMPLOYMENT HISTORY

- 2016- Assistant Professor, Department of Chemistry & Division of Environmental Science, State University of New York College of Environmental Science and Forestry, Syracuse, NY
- 2013-2016 Postdoctoral Scholar, Curriculum in Toxicology, University of North Carolina at Chapel Hill, Chapel Hill, NC

## PEER-REVIEWED PUBLICATIONS

1. Charette AT, Collins M, **Mirowsky JE**. 2021. Measuring residential socioeconomic factors associated with pollutant releases using EPA's Toxic Release Inventory. *Journal of Environmental Studies and Sciences*. 11(2):1-11.
2. Zangari S, Hill D, Charette AT, **Mirowsky JE**. 2020. Air quality changes in New York City during the COVID-19 pandemic. *Science of the Total Environment*. 742, 140496.
3. Bind M-A C, Rubin D, Cardenas A, Dhingra R, Ward-Caviness C, Liu Z, **Mirowsky J**, Schwartz JD, Coull BA, Diaz-Sanchez D, Devlin RB. 2020. Heterogeneous causal effects of ozone on DNA methylation of bronchial epithelial cells: Evidence from a randomized crossover study. *Scientific Reports*. 10 (1), 1-15.
4. Petroni M, Hill D, Younes L, Barkman L, Howard S, Howell IB, **Mirowsky J**, Collins MB. 2020. Hazardous air pollutant exposure as a contributing factor to COVID-19 mortality in the United States. *Environmental Research Letters*. 15:0940a9.
5. **Mirowsky JE**. 2020. Converting a lecture/laboratory course into an inquiry-based laboratory experience during the transition to distance learning. *Journal of Chemical Education*. 97 (9) 2992-2995.
6. Zangari S, **Mirowsky JE**. 2019. A simple, cost-effective, and novel method for determining the efficiency of industrial and commercial noise-canceling earmuffs. *Noise and Health*. 21(100):108-115.
7. Weaver AM, McGuinn L, Neas L, **Mirowsky, JE**, Devlin R, Dhingra R, Ward-Caviness C, Cascio W, Kraus WE, Hauser ER, Di Q, Schwartz J, Diaz-Sanchez D. 2019. Neighborhood sociodemographic effects on the associations between long-term PM<sub>2.5</sub> exposure and cardiovascular outcomes and diabetes. *Environmental Epidemiology*. 3(1).
8. **Mirowsky JE**, Carraway MS, Dhingra R, Tong H, Neas L, Diaz-Sanchez D, Cascio W, Case M, Crooks J, Hauser E, Dowdy ZE, Kraus W, Devlin RB. 2017. Ozone exposure is associated with acute changes in inflammation, fibrinolysis, and endothelial cell function in coronary artery disease patients. *Environmental Health*. 16(1): 126.
9. **Mirowsky JE**, Devlin RB, Diaz-Sanchez D, Cascio W, Grabich SC, Hayes C, Blach C, Hauser ER, Shah S, Kraus W, Olden K, Neas L. 2017. A novel approach for measuring residential socioeconomic factors associated with cardiovascular and metabolic health. *Journal of Exposure Science and Environmental Epidemiology*. 27: 281-289.
10. Zhou S, Pan G, Behrooz L, Vilcassim R, **Mirowsky JE**, Breysee P, Rule A, Huang JS, Weitzman M, Gordon T. 2016. Secondhand hookah smoke: an occupational hazard for hookah bar employees. *Tobacco Control*. 0: 1-6.
11. **Mirowsky JE**, Dailey LA, Devlin RB. 2016. Differential expression of pro-inflammatory and oxidative stress mediators induced by nitrogen dioxide and ozone in primary human bronchial epithelial cells. *Inhalation Toxicology*. 28: 374-382.
12. **Mirowsky JE**, Peltier RE, Lippmann M, Thurston G, Neas L, Diaz-Sanchez D, Carter J, Laumbach R, Gordon T. 2015. Repeated measures of inflammation, blood pressure, and heart rate variability associated with traffic exposures in healthy adults. *Environmental Health*. 14: 66-77.
13. **Mirowsky JE**, Gordon T. 2015. Non-invasive effects measurements for air pollution human studies: methods, analysis, and implications. *Journal of Exposure Science and Environmental Epidemiology*. 25: 354-380.
14. **Mirowsky J**, Jin L, Thurston G, Lighthall D, Tyner T, Horton L, Galdanes K, Chillrud S, Ross J, Pinkerton KE, Chen LC, Lippmann M, Gordon T. 2015. *In vitro* and *in vivo* toxicity of urban and rural particulate matter from California. *Atmospheric Environment*. 103: 256-262.

15. **Mirowsky J**, Hickey C, Horton L, Blaustein M, Galdanes K, Peltier RE, Chillrud S, Chen LC, Ross J, Nadas A, Lippmann M, Gordon T. 2013. The effect of particle size, location and season on the toxicity of urban and rural particulate matter. *Inhalation Toxicology*. 25: 747-757.

#### **SELECTED INVITED ORAL PRESENTATIONS**

1. "Air pollution in Syracuse & the I-81 project" panelist. GreeningUSA Green Bag Lunch (webinar). Mar 26, 2021.
2. "Diesel and gasoline combustion products and their association with human health impacts". New York State Biotechnology Symposium. Syracuse, NY; 2018.
3. "Lost-cost air pollution sensors". Technical Meeting of the Central New York Air & Waste Management Association. Skaneateles, NY; Mar 22, 2018.
4. "Measuring adverse health effects associated with air pollutant exposures using cellular and human models". Technical Meeting of the Central New York Air & Waste Management Association. Skaneateles, NY; Mar 27, 2017.
5. "A novel approach for measuring residential socioeconomic factors associated with cardiovascular and metabolic health". University of North Carolina at Chapel Hill Social Epidemiology Seminar Series. Chapel Hill, NC; Apr 27, 2016.
6. "Changes in DNA methylation are associated with acute ozone exposures in healthy human subjects". Society of Toxicology Annual Meeting. New Orleans, LA; Mar 10, 2016.
7. "Repeated measures of pulse pressure associated with personal traffic exposures in a behavior intervention study of healthy adults". International Society of Environmental Epidemiology Annual Meeting. Seattle, WA; Aug 22, 2014.
8. "Cellular systems to assess the toxicology of air pollutants". William Paterson University Department of Chemistry (keynote speaker). Wayne, NJ; 2014.

#### **RESEARCH GRANTS**

2020	Syracuse Center of Excellence Faculty Fellows Program "Measuring the vertical profile of air pollution and noise near Interstate-81" Mirowsky (PI)	Total cost = \$13,976
2019-2020	State University of New York College of Environmental Science and Forestry Discovery Challenge Grant "The Center for Environmental Medicine and Informatics (CEMI)" Mirowsky (Co-PI)	Total cost = \$600,000
2018-2019	McIntire-Stennis Research Program Seed Grant "Measuring air pollutant and noise variability at several locations around Syracuse, NY" Mirowsky (PI)	Total cost = \$6,000
2012-2013	Raymond M. Manganelli Scholar; Air & Waste Management Association "Cardiopulmonary health effects of traffic-related air pollutants" Mirowsky (PI)	Total cost = \$25,000
2011-2012	Air Pollution Educational and Research Grant, Air & Waste Management Association "Cardiopulmonary health effects of traffic-related air pollutants" Mirowsky (PI)	Total cost = \$25,000

#### **SERVICE AND OUTREACH ACTIVITIES**

2019	Presenter, State University of New York College of Environmental Science and Forestry's Field Day
2018	Co-organizer, State University of New York College of Environmental Science and Forestry & State University of New York Upstate Medical University One Health Symposium
2017	Poster judge, State University of New York College of Environmental Science and Forestry's Environmental Summit Research Symposium
2017	Presenter, State University of New York College of Environmental Science and Forestry's 24 <sup>th</sup> Annual Take Your Kids to Work Day
2017	Poster judge, GENIUS Olympiad
2017	Presenter, Central New York STEM Summer Camp for Young Women

#### **AWARDS & HONORS**

2016	Best manuscript award, Occupational and Public Health Specialty Section, Society of Toxicology
2015	Best postdoctoral abstract award, Inhalation and Respiratory Specialty Section, Society of Toxicology
2015	Postdoctoral fellow achievement award (Honorable mention), Women in Toxicology Special Interest Group, Society of Toxicology
2015	Gabriel L. Plaa education award (3 <sup>rd</sup> place), Mechanisms Specialty Section, Society of Toxicology

**Lemir Teron**  
**The State University of New York**  
**College of Environmental Science & Forestry**  
1 Forestry Dr • Syracuse, NY 13210  
LTeron@esf.edu

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## **EDUCATION**

**PhD**, Energy and Environmental Policy, University Delaware, 2015

**MS**, Urban Policy Studies, Georgia State University, 2008

**BS**, Social Science Education, University of Georgia, 2001

## **PROFESSIONAL EXPERIENCE**

**Assistant Professor**, SUNY College of Environmental Science & Forestry,  
Department of Environmental Studies, 2016-

**Postdoctoral Associate**, Florida A&M University  
NOAA Environmental Cooperative Science Center, School of the Environment, 2015-2016

**Instructor**, Florida A&M University  
College of Law, 2016

## **PRODUCTS (\*indicates my student):**

Khayat, F.\*, **Teron, L.**, & Rasoulyan, F. “COVID-19 and health inequality: the nexus of race, income and mortality in New York City”, International Journal of Human Rights in Healthcare, 2021

Sterling, E., Betley, E., **Teron, L.** et al. “Centering Equity in Sustainable Food Systems Education”, Front. Sustain. Food Syst., 2021

**Teron, L.**, White, T.,\* Nibbs, F. & Khayat, F.\* “Destroy and Rebuild: Considering Harm, Community Benefits & Environmental Ornamentation in Community Development in Atlanta”, Bloomsbury Press, 2021

**Teron, L.**, Louis-Charles, H. M., Nibbs, F., & Uppalapati, S. S.\* “Establishing a Toxics Mobility Inventory for Climate Change and Pollution”, Sustainability: The Journal of Record, 12(4), 2019.

Fortier M., **Teron L.**, Reames T.G., Munardy D., and Sullivan B. “Introduction to Evaluating Energy Justice Across the Life Cycle: A Social Life Cycle Assessment Approach”, Applied Energy, 236, 2019.

**Teron L.** and Ekoh S.\* “Energy Democracy and the City: Evaluating the Practice and Potential of Municipal Sustainability Planning”, Frontiers in Communication: Science and Environmental Communication, 2018.

Louis-Charles, H & **Teron, L.** “Environmental Migration, Public Perception & Immigration Policy: Examining the Hidden Environmental Toll of Terror Hysteria”, Environmental Justice, 2017.

**Teron, L.** “Sustainably Speaking: Considering Linguistic Isolation in Citywide Sustainability Planning”, Sustainability: The Journal of Record, 9 (6), 2016.

**Teron, L.** 2015. “A Language of (In)Justice: Expanding the Sustainability Planning Lexicon”, Environmental Justice, 8 (5), 2015.

## **SYNERGISTIC ACTIVITY**

Increasing Community Resilience and Reducing Disaster Risk through Equitable Urban Forest Planning, Co-PI, USDA 2021-2024: \$290,684 (\$585,422 after matching).

Untargeted analysis of emerging contaminants in Great Lakes, Great Lakes Consortium, 2021-2022: \$24,789

## **SERVICE & OUTREACH**

2021-           New York State Climate Impacts Assessment, Energy Working Group

2020 -           Reimagine the Canals Technical Advisory Council

2018-           Milton J. Rubenstein Museum of Science & Technology, Board of Trustees  
Board Secretary 2020-

## **AWARDS & HONORS**

*2020 Unsung Hero Award*, 35th Martin Luther King Jr. Celebration, Syracuse University

*2019 Distinguished Faculty Member for Teaching Excellence Award*, SUNY ESF Undergraduate Student Association

# Amy Samuels

## Ex. 6 Personal Privacy (PP)

**Education** SUNY College of Environmental Science and Forestry, Syracuse, NY  
Master of Science, Forest Biology, August 2002

Syracuse University, Syracuse, NY  
Master of Science, Science Teaching, December 1996

Cornell University, Ithaca, NY  
Bachelor of Science, General Agriculture, 1987  
Concentrations in agricultural economics and community nutrition

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### Community Education Experience

**Community Organization**  
Education & Outreach *Onondaga Environmental Institute*, Onondaga County, Syracuse, NY 2010-present  
Coordinator  
Co-wrote and piloted watershed curriculum for schools in Onondaga and Oneida Counties  
Established and supervised watercraft steward program on Oneida and Onondaga Lakes  
Collaborated with multiple partners to develop & implement education program for the Onondaga County Save the Rain Campaign  
Designed riparian buffer restoration plans for brook trout restoration along local streams  
Facilitated capacity growth of grass-roots community organizations  
Instructed refugees and disadvantaged adults as part of ESF's Green Landscaping and Urban Ecology training program

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Natural Resources Team Coordinator *Cornell University Cooperative Extension*, Onondaga County, Syracuse, NY 1997-2009  
Guided and implemented association objectives in water resources, forestry & related youth programs  
Collaborated with multiple partners to address community needs surrounding green infrastructure and youth development  
Hired and supervised up to six part-time and full time staff  
Successfully sought and managed grants and contracts  
Fostered a supportive work environment that valued independent and team work, excellence, creativity and a sense of humor

Extension Educator  
Developed and implemented water resources programs to meet community needs  
Co-created the "Adopt-A-Shoreline" program, a volunteer based invasive aquatic plant management program  
Coordinated the Skaneateles Lake and Oneida Lake Watersheds Education Program

Program Assistant  
Developed popular, innovative publications about non-point source pollution  
Coordinated landscaping for water quality demo projects in Skaneateles & CNY  
Collaborated with Cornell University faculty and staff to develop and pilot the "Businesses Providing Safe Drinking Water" program

### Teaching Experience

**Nature Center**  
Summer Naturalist

*Adirondack Park Visitor Interpretive Center*, Newcomb, NY 1993  
Developed and conducted nature education programs for 5-11 year olds  
Created and led guided trail walks about Adirondack flora and fauna  
Supervised college and high school interns

**University**  
Teaching Assistant

*SUNY ESF*, Syracuse, NY 1993-1996  
Assumed responsibility for teaching labs in Diversity of Plants, Ecology and Botany  
Assisted students in all aspects of an intensive field course in Disturbance Ecology

**Public School**  
Student Teacher

*Clary Middle School*, Syracuse, NY Fall, 1995  
Taught science and health to 5 classes of urban seventh graders  
Identified and worked with students at risk



<b>Research Experience</b>	Research Intern	<i>The Nature Conservancy</i> , Chaumont Barrens Preserve, Chaumont, NY 1993-1995 Conducted field research to determine the environmental factors that facilitate the abundance of the invasive plant, <i>Rhamnus cathartica</i>
<b>Awards</b>	Oneida Lake Association, Conservationist of the Year, 2009 Association Natural Resource Educators 2003 Silver Award for “Businesses Providing Safe Drinking Water” U.S. Environmental Protection Agency 2000 Environmental Quality Award Northeast Extension Directors 1999 Award of Excellence for the Skaneateles Lake Watershed Program	
<b>Certification</b>	New York State Secondary Education (7-12), February 2003, Provisional Content Areas: General Science & Biology	
<b>Publications</b>	“Preservation of Rural Watershed and Drinking Water Resources”, A.T. Lemley, D. Grantham, S.Darling, K.Hillman, A. Samuels and L.Wagenet, AWRA Proceedings, July 2003	
<b>Volunteer</b>	Board President, Onondaga Earth Corps, 2016-present	
<b>Skills</b>	Proficient in Microsoft Office Applications, Canva	

Dr. Jaime Mirowsky will be responsible for the quality assurance and quality control aspects of this project. She has over 13 years of experience in air quality monitoring and environmental sampling, and her expertise is in the collection and analysis of particulate matter. Dr. Mirowsky is an Assistant Professor of Chemistry and Environmental Health at the State University of New York College of Environmental Science and Forestry. She has extensive knowledge about quality control and assurance through both her research and her teaching experience, which includes teaching an undergraduate-level course on environmental sampling methods that has a large focus on ensuring data quality through EPA's data quality indicators (DQI) and objectives (DQO).

For this project, one of the major objectives is to set up a permanent air quality monitoring system that will provide long-term data on particulate matter in order to understand events and situations that affect local air quality in environmental justice neighborhoods impacted by Interstate 81 in Syracuse, New York. To do this, we have selected two different types of air quality monitors to measure the concentration of ambient particulate matter with a diameter of less than 2.5 microns (PM<sub>2.5</sub>) in this community. The first type of monitor selected will be a top-tier monitor that produces the highest quality data. This top-tier monitor will be supplemented by second-tier monitors that are of slightly lower quality and cost. The purpose of the second-tier monitors is to provide the community with additional particulate matter data at several locations identified by the community as "areas of concern", including but not limited to local schools, playgrounds, and community centers. Particulate matter concentrations can be influenced by meteorological conditions such as wind speed and direction. Thus, having several monitors spread throughout the community to complement and supplement the data from the higher tier monitor will allow us to increase the representativeness of the data being collected across the study area.

Comparability is the degree to which different methods or data agree or can be represented as similar. With the deployment of two different types of monitors for this proposal, it will be important to ensure that the monitors give comparable data. Therefore, the first thing that will be done when all the monitors are acquired is to set them up in the same location and let them run simultaneously over several days. Correlations will be calculated between each of the monitors to assess how similar the results are. This procedure will be completed yearly, at a minimum, to ensure monitor comparability. This procedure might also be completed at any point throughout the year if large differences in particulate matter concentrations are observed between the monitors; it should be noted that differences between the monitors could also be a result of a local source of PM and does not necessarily mean there is a data quality problem. As a last resort, if there is a concern about the data coming from any of the monitors, PM concentrations can be compared to the local New York State Department of Environmental Conservation (NY DEC) monitor located approximately 8 miles from the interstate.

The top-tier monitor selected for this work is the AQS-1 (Aeroqual), which has an accuracy of  $2 \mu\text{g}/\text{m}^3 + 5\%$  of the reading. With this monitor, PM<sub>2.5</sub> is measured using a light scattering nephelometer, with a PM<sub>2.5</sub> sharp-cut cyclone fitted to the inlet to ensure greater data. The nephelometer can correct for both thermal and optical drift. To ensure data accuracy, we will purchase Aeroqual's MOMA data validation and network calibration service, and the data will be checked monthly. MOMA is a proprietary calibration technique that uses higher-grade instruments near our monitor to improve the data quality from the AQS-1's sensors, and this technology was developed in conjunction with the South Coast Air Quality Management

District. In addition, the particle monitor will be sent to the factory for calibration every 2 years, as recommended by the manufacturer. To minimize problems in data quality that might be associated with particle sample loading, the inlet filter will be checked and changed (by Dr. Mirowsky) every 2-3 months. A flow check for the monitor will be performed every six months, and this will also be done by Dr. Mirowsky.

Our top-tier monitor will be supplemented with 2-3 second-tier monitors (AQY-R, Aeroqual) to increase the representativeness of the air quality data being collected. The AQY-R uses laser scattering to measure the concentration of PM<sub>2.5</sub> with an accuracy of  $10 \mu\text{g}/\text{m}^3 + 5\%$  of the reading. The PM sensor will be replaced every 12 months, as recommended by the manufacturer. Similar to the AQS-1, to ensure the quality of the data, we will purchase Aeroqual's MOMA data validation and network calibration service, and the data will be checked monthly.

For both the top- and second-tier monitors, particulate matter concentrations will be collected every hour, and the data will be output into a public facing dashboard run through JustAir ([justair.co](http://justair.co)). In addition, the raw data will be available to download by OEI, SUNY ESF, and any other researchers or partners with interest in measuring air quality near the interstate in this disadvantaged community. As this project is being developed with input from the community, the location for where the monitors will be placed has not yet been determined. The completeness of the data will be dependent on the individual monitors and routinely monitored by the study team. If over the course of a month data completeness falls below 80%, the manufacturer will be notified and the monitor will be taken offline to assess why this occurred.

Manifest for Grant Application # GRANT13579783

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 25367 bytes)

Forms Included in Zip File(total 6):

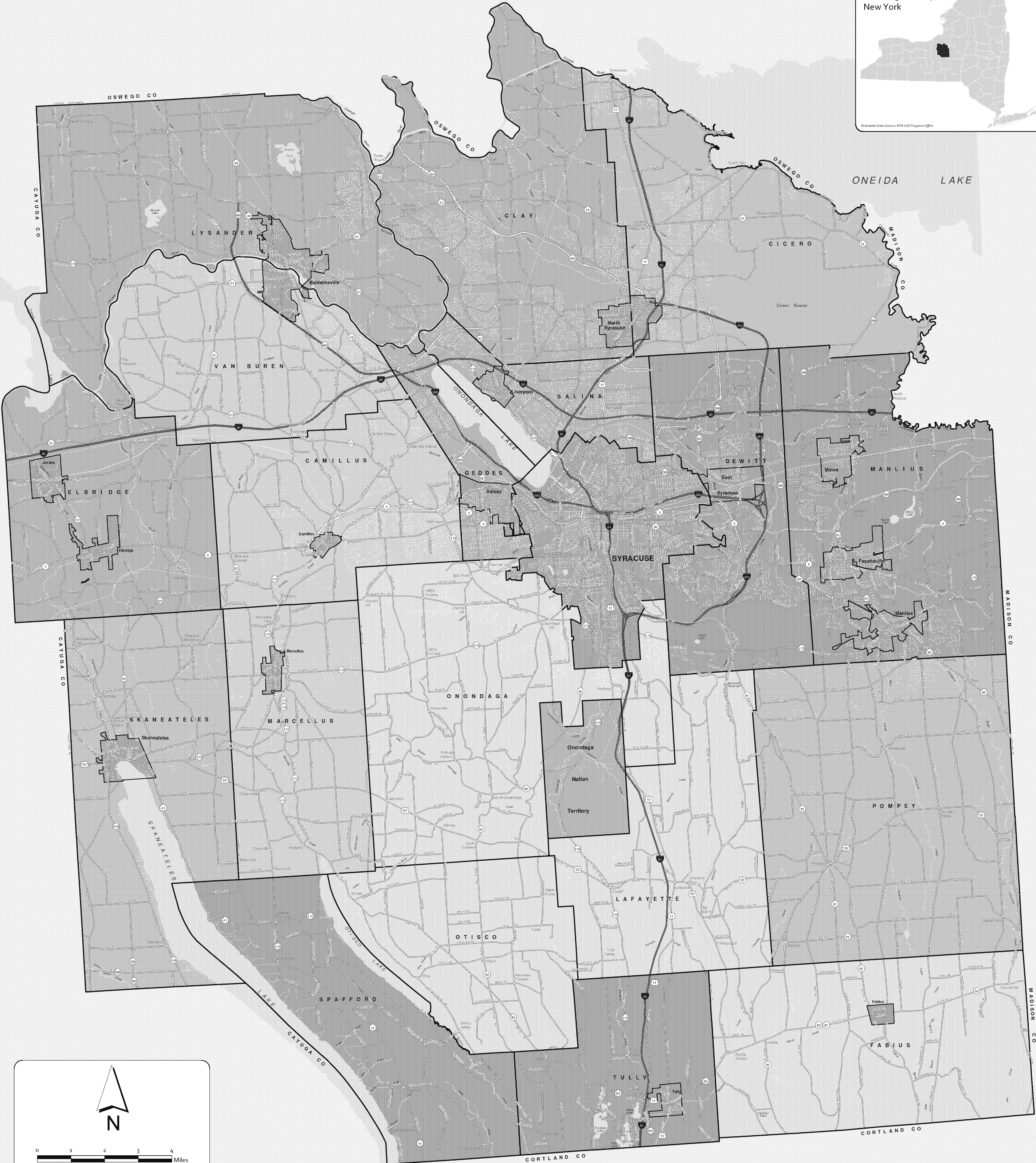
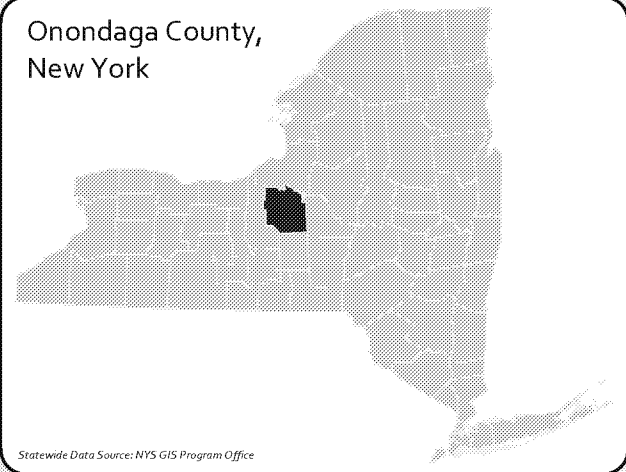
1. Form ProjectNarrativeAttachments\_1\_2-V1.2.pdf (size 16130 bytes)
2. Form SF424\_3\_0-V3.0.pdf (size 24275 bytes)
3. Form SF424A-V1.0.pdf (size 23093 bytes)
4. Form EPA4700\_4\_3\_0-V3.0.pdf (size 22754 bytes)
5. Form OtherNarrativeAttachments\_1\_2-V1.2.pdf (size 15906 bytes)
6. Form EPA\_KeyContacts\_2\_0-V2.0.pdf (size 37271 bytes)

Attachments Included in Zip File (total 8):

1. ProjectNarrativeAttachments\_1\_2 ProjectNarrativeAttachments\_1\_2-Attachments-1235-Workplan\_OEI032422.pdf application/pdf (size 396697 bytes)
2. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1240-OEI NICRA F20 2021\_11\_24\_fullexec113021.pdf application/pdf (size 292124 bytes)
3. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1241-EJ attachment\_OEI032422.pdf application/pdf (size 503143 bytes)
4. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1238-PrtnrLtrsMERGE\_OEI032322.pdf application/pdf (size 1748926 bytes)
5. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1236-QA statement\_v2\_OEI032222.pdf application/pdf (size 122130 bytes)
6. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1239-RsmesMERGE\_OEI032322.pdf application/pdf (size 279074 bytes)
7. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1237-ProofNPStts\_OEI032322.pdf application/pdf (size 178144 bytes)
8. SF424\_3\_0 SF424\_3\_0-1234-OnondagaCountyMAP.pdf application/pdf (size 4164157 bytes)



# Onondaga County



N

0 1 2 3 4 Miles

0 5,000 10,000 15,000 20,000 25,000 Feet

This map is intended for general planning purposes only.  
December 2021

